



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,300	04/16/2004	Hiroshi Takahashi	251950US2	7756
22850 7590 01/30/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER BEATTY, ROBERT B	
			ART UNIT	PAPER NUMBER
			2852	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/825,300

Applicant(s)

TAKAHASHI ET AL.

Examiner

Robert Beatty

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 14-16 is/are rejected.
- 7) ☒ Claim(s) 10-13 and 17-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. The applicant has amended the specification on pages 22-23, 25-26 and page 26 however has not followed 37 CFR 1.121. Specifically, markings have not been shown. Please revise.

2. Claims 7-13 are objected to because of the following informalities:

in claim 7, lines 1-3 are unclear because applicant calls for a "structure of a frame-side plate frame..." comprising various parts of an image forming apparatus but the frame, per se, cannot include parts of an image forming apparatus. It is assumed that the applicant is claiming an "image forming apparatus" and should so claim however please compare to claims 14-20 which appear similar.

Appropriate correction is required.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe et al. in view of Mochimaru et al.

Abe et al. teach an image forming apparatus for forming a visible image on a recording sheet by an image forming section 7 and ejecting the recording sheet

Art Unit: 2852

above the image forming section into an ejection tray 3a (see Fig. 1) located above the image forming section. A conveyance unit 3 (see Fig. 6) is located to the side of the image forming section and includes a transfer roller 39, a fixing device 11, and a upward conveyance rollers 37,41. The conveyance unit attachable detachable via pivot 57 (col. 9, lines 10-25 through the front of the image forming apparatus. It is noted that transfer roller 39 transfers a visible image to a transfer material from an image carrier (transfer belt 14). Specifically, Abe et al. teach everything claimed except the ejection tray being "internal" to the image forming apparatus.

Mochimaru et al. teach an image forming apparatus comprising a ejection tray 31 located above a image forming unit 2Bk, 2M, 2C, 2Y,3 (see Fig. 4) and a conveyance unit 1B pivotable about a pivot 35. The conveyance unit includes a transfer belt 15, part of the fixing device 30A, and one of a pair of conveyance rollers. As seen in Figs 12-14, the image forming apparatus can be configured to have a ADF and a scanner above the ejection tray rendering the ejection tray "internal". It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Abe et al. to have a scanner/ADF above the ejection tray because the image forming apparatus can act as a copier (not just a printer) thus adding flexibility to an operator of the apparatus.

4. Claims 7-9 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirota et al. in view of JP# 2002-14555.

Hirota et al. teach an image forming apparatus comprising an image forming part 4, an internal ejection tray 50 above the image forming unit (see Fig. 5), a transfer device (not labeled but part of the image forming part), a fixing unit 7, and conveyance rollers such as 8, for conveyance a sheet from a paper supply 6 past the image forming part and to the ejection tray. Specifically, Hirota et al. teach everything claimed except the transfer device, fixing unit, and conveyance rollers incorporated in a single unit which is removable from a front side of the image forming apparatus through a opening in a reinforcing frame member having a protruding part. In addition, using pipe frames for the image forming apparatus is not taught.

JP# 2002-14555 teach an image forming apparatus comprising an image forming unit 2, a transfer device 32, a fixing device 34, and conveyance rollers 31,35 for conveying the sheet from a paper supply past the image forming unit and to an ejection tray (see Fig. 1). As seen in Fig. 2-3, the transfer device, fixing unit, and conveyance rollers are all integral to a removable unit which is removable from a front frame member (see Fig. 5) through an opening in the frame member. It is noted that the front frame member has the holes 16a, 17a therein so as to accommodate pins 36a, 37a from the removable unit. The frame member has a "protruding portion" to accommodate, for example, the fixing device (i.e. it is not perfectly square or rectangular). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Hirota et al. to have an

Art Unit: 2852

removable unit comprising the transfer unit, fixing unit, and conveyance rollers which would be removable through a frame member in the apparatus because if refurbishing/ reconditioning/ or jam removal is necessary, it would be easy to access these parts of the image forming apparatus without undue effort (e.g. dismantling the entire apparatus). In addition, the examiner takes Official Notice that the use of pipe frame members for use in the construction of an image forming member are very well known in the art to provide adequate structural integrity to the apparatus.

5. Claims 10-13, 17-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Applicant's arguments filed 10/30/2006 have been fully considered but they are not persuasive.

The applicant argues that Abe does not teach a releasable single unit having a transfer device for transferring an image from an image carrier to a transfer material along with a fixing unit and conveying unit. However it is noted that while Abe has image carriers 17 for carrying a visible image (which apparently applicant is referring to), Abe also has a transfer belt 14 which acts as an image carrier.

The applicant also argues that JP ' 555 does not teach a front side plate frame provided along the periphery of the opening in which a removable unit is detachable. However, as seen in Fig. 5, the front side plate is the part which has the holes 16a, 17a and is provided at least along the periphery of the opening.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Beatty whose telephone number is (571) 272-2130. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray, can be reached on (571) 272-2119. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Robert Beatty
Primary Examiner
Art Unit 2852

January 22, 2007